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XCE  
CAA F

Responsive Dr.

Inspection Date:

EPA Representative:

Tribal Representative:

Company Representative:

Inspection Report Reviewed By:

Responsive Document

TED

Last Inspection:

6/21/00

Permit Number: V-SU-0023-05.00  
Replaces Permit No.: V-SU-0023-00.00Issue Date: December 6, 2005  
Effective Date: December 16, 2005  
Expiration Date: December 16, 2010

In accordance with the provisions of title V of the Clean Air Act and 40 CFR part 71 and applicable rules and regulations,

Tiffany Compressor Station  
Southern Ute Indian Reservation in southwest Colorado.  
Sec. 4, T32N, R6W, La Plata County, Colorado  
1213 County Road 330, Ignacio, Colorado

**I. Source Identification and Unit-Specific Information****I.A. General Source Information**

Parent Company name: Xcel (Public Service Company of Colorado)

Parent Company Mailing Address: P.O. Box 840  
Denver, CO 80201-0840

Plant Name: Tiffany CS

Plant Mailing Address: P.O. Box 840, Denver, CO 80201-0840

Plant Location: 1213 County Road 330, Ignacio, Colorado  
Region: VIII State: Colorado County: La Plata

Reservation: Southern Ute Tribes: Southern Ute

**XCEL TIFFANY CS**  
CAA FCE August \_\_, 2006

**Inspection Date:** August \_\_, 2006  
**EPA Representative:** Cindy Beeler  
**Tribal Representative:**  
**Company Representative:** Bob King?  
**Inspection Report Reviewed By:** Cindy Reynolds, Martin Hestmark  
**Last Inspection:** 6/21/00

2006  
REPORT  
NEVER  
COMPLETED

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**Plant Location:** 1213 County Road 330, Ignacio, Colorado  
**Region:** VIII **State:** Colorado **County:** La Plata  
**Reservation:** Southern Ute **Tribes:** Southern Ute

**Company Contact:** Bob King **Phone:** (720) 497-2114

**Plant Manager/Contact:** **Phone:** ( )

**Responsible Official:** Kevin J. Lawless **Phone:** 612-330-7936

**Tribal Contact:** Christopher Lee **Phone:** 970-563-4705

**Local Government Contact:** n/a **Phone:** n/a

**SIC Code:** 4922

**AFS Plant Identification Number:** ~~56-013-00011~~ 08-067-00158

**AIRS Class:** A

**Regulations:** PSD, NESHAP

**Other Clean Air Act Permits:** No other Federal Clean Air Act Permits

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### **Summary of Enforcement Actions:**

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### **Compliance Status:**

This facility was found to be operating in compliance with applicable Clean Air Act standards and regulations. No Air Quality Concerns were noted.

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### **Description of Process:**

The Tiffany Compressor Station compresses natural gas for delivery to the pipeline and then removes water from the gas stream (dehydration). This source is classified as a natural gas transmission facility defined under Standard Industrial Classification 4922. The facility does not extract natural gas liquids (NGL=s) from field gas, nor fractionate mixed NGL to natural gas products.

Air pollutant emissions are primarily from three internal combustion engines which drive the compressors, and from three triethylene glycol dehydration units. All engines are White Superior model 8G825 4-cycle engines, fired only on natural gas, site rated at 660 horsepower (hp) each, and exhaust individually to the atmosphere. Engine E001 was installed in 1974, E002 in 1977, and E003 in 1980. Dehydrator units D001, D002 and D003 have the potential to emit VOC=s, benzene, toluene, xylene and n-Hexane in amounts above the insignificant emission unit threshold quantities. Units D001 and D002 are Production Equipment Corporation, D003 is a J. W. Williams Units D001 and D002 were installed in 1974, unit D003 was installed in 2003.

There are 3 glycol reboiler burners (2 rated at 0.625 mmBtu/hr, 1 rated at 0.35 mmBtu/hr), a 527 gallon triethylene glycol above ground storage tank, a 1,100 gallon oil tank, a 560 gallon

underground used oil tank, a 2,000 gallon water/oil tank, and an Elastec Inc Smart Ash Burner, which are listed in the part 71 operating permit application as insignificant emitting units. All emitting units are listed in section I.B of this permit.

The Tiffany Compressor Station is a major source subject to the part 71 operating permit requirements due to its potential emissions of oxides of nitrogen (NO<sub>x</sub>), and carbon monoxide (CO). Those potential emissions, are as follows: 162 tpy NO<sub>x</sub> and 198 tpy CO.

The potential to emit for the facility as a whole are as follows:

nitrogen oxides (NO<sub>x</sub>) - 162 tpy  
carbon monoxide (CO) - 198 tpy  
volatile organic compounds (VOC) - 32.2 tpy  
small particulates (PM<sub>10</sub>) - 0.6 tpy  
sulfur dioxide (SO<sub>2</sub>) - 0.03 tpy  
total hazardous air pollutants (HAPs) -14.9 tpy  
largest single HAP (Toluene) - 8.1 tpy

*Gary Pope, Opn's Supvr*

### General Inspection Observations and Commentary:

On 8/\_\_\_/06 I met with Bob King ...

#### Opening Meeting –

- The purpose of this inspection is to evaluate compliance with Title V permit. Do you have a copy of the permit? You are currently operating under a valid permit. Your renewal application will be due NET 12/16/09 but NLT 6/16/10.
- First I'd like to walk through the facility and then we'd like to check your records, e.g.
  - ~~engine performance test results~~
  - ~~engine and catalyst maintenance records~~
  - ~~number of operating hours on engines~~
  - ~~weekly ΔP and daily T-logs on engines~~
  - ~~vendor specs demonstrating accuracy of thermocouples at catalysts~~
  - ~~deviation reports~~
  - ~~quarterly portable analyzer data~~
  - ~~quarterly formaldehyde monitoring~~
  - ~~12-month rolling average on plant-wide formaldehyde emissions~~
  - monthly gas throughput (what is plant capacity? \_\_\_\_\_ MMscfd)
  - gas analyses
- ✓ I would also like to have you walk me through how you estimate your annual actual emissions ~~and rolling 12-month average formaldehyde emissions.~~
- Are you aware of EPA's Natural GasSTAR program? Gave them copy of latest GasSTAR newsletter; gave them website address, <http://www.epa.gov/gasstar/>; and discussed how as of 2005, the companies participating in Natural Gas STAR represent 56% of the natural gas industry in the U.S. (61% of Productions sector). Today, the program has over 110 partner companies and is endorsed by nearly 20 major industry trade associations.

Since the Program began in 1993, Natural Gas STAR partners have eliminated nearly 400 billion cubic feet (Bcf) of methane emissions through the implementation of the Program's core Best Management Practices (BMPs), as well other activities identified by partner companies (referred to as Partner Reported Opportunities - or PROs) (see chart below). At the same time, these companies have saved over \$1 billion by keeping more gas in their systems for sale in the market. Transmission sector partners reported nearly more than 21 Bcf of reductions in 2004—and a total of 137 Bcf since 1993. Top PROs reported by transmission sector partners in 2004 included:

- Use fixed/portable compressors for pipeline pumpdown
  - Use of composite wraps
  - Install electric compressors
  - Use hot taps for in-service pipeline connections
  - Replace wet gas seals with dry seals
- Any questions for us?

**Walk Through Inspection Observations –**

How Samson Resources is operating within their permit conditions is presented below.

4" x 10" Red Cedar — Inlet 2500 psi  
(Arkansas Gas Coop)  
8" Discharge — Xcel Trans. Line  
(900 psi Max press.)

30 mm scfd → ~6 mm scfd today  
capacity Demand-side

# I.B. Source Emission Points

RTU — SCADA  
transmits flow data to Red Cedar

Table 1. Source Emission Points

The following table identifies and describes each emissions unit, such as process units and control devices, and each alternative operating scenario later referenced in this permit.

The lower the gas T  
the better Dehy works

Emission Unit Id.	Description	1. Installation Date 2. Maximum horsepower 3. Fuel type 4. Use	Control Equipment	Observations
E001	White Superior model ✓ 8G825 Compressor Engines Serial # 21086 ✓  Records of main schedule?	1. 1974 ✓ 2. 660 hp ✓ 3. natural gas 4. compressor engine  Get copy of tariff sheet showing natural gas quality ...  Crank case vent routed back to canister & re-entered into the fuel & reburned in combustion chamber	none	Operating? 4SRB? 2SLB? Install Date ...  Last time engine swapped out — ___/___ ... engine from where?  How often do visual inspections of catalyst ... Last time catalyst washed out on site? Last time catalyst element replaced?  Ports to measure ΔP and T ... Suction pressure ... 244 738 rpm 744  Discharge pressure ... 659  Temp pre-catalyst (750F < _____ < 1250F) Temp post-catalyst ... ΔP ... Performance test ΔP = _____ in. H2O Analyzer port locations ...

E002	White Superior model ✓ 8G825 Compressor Engines Serial #268139 ✓  Records of main.schedule?	1. 1977 2. 660 HP 3. natural gas 4. compressor engine	none	Operating? <i>NO</i> 4SRB? 2SLB? Install Date ...  Last time engine swapped out - __/__/__ engine from where?  <del>How often do visual inspections of catalyst ...</del> <del>Last time catalyst washed out on site?</del> <del>Last time catalyst element replaced?</del>  <del>Ports to measure ΔP and T ...</del> Suction pressure ...  Discharge pressure ...  Temp pre-catalyst (750F < _____ < 1250F) <del>Temp post-catalyst ...</del> <del>ΔP ....</del> Performance test ΔP = _____ in. H <sub>2</sub> O <del>Analyzer port locations ...</del>
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D002	Triethylene Glycol Dehydrators, manufactured by Production Equipment Corp <i>Harry sends him weekly spreadsheets</i>	1. 1974 2. _____ MMscfd 3. natural gas 4. TEG dehydrator <i>Daily AM &amp; PM reading            Pump strokes/min            W. @ 16 gtr/min = 1.75 gpm</i>	none <del>stripping</del> <i>stripping gas            3 cfm</i>	Install Date ... <i>✓oper</i> Glycol Pump make/model ... <i>2 Kimray ~9015 ?            (1 backup) 21015</i> Pump max thruput ... Gas thruput ... <i>10 MMscfd. (12 max)</i> Last gas analyses?
D003	Triethylene Glycol Dehydrators, manufactured by J. W. Williams	1. 2003 2. _____ MMscfd 3. natural gas 4. TEG dehydrator  <i>16 gtr/min = 0.6 gpm</i>	none	Install Date ... <i>NO</i> Glycol Pump make/model ... <i>1 Kimray 905 ✓</i> Pump max thruput ... Gas thruput ... <i>~8 MMscfd</i> Last gas analyses?
Fugitives	Plant Fugitives	1. n/a 2. 3. natural gas 4. n/a	none	

Table 2. Insignificant Emission Points

The following table identifies and describes the insignificant activities/emission units at this source.

Number of Units	Description	Observations (NO=Not Operating)
1	Glycol reboiler burners for units D001 and D002, rated at 0.625 mmBtu/hr	
1	Glycol reboiler burners for units D003, rated at 0.35 mmBtu/hr	
1	527 gallon Triethylene glycol storage tank, above ground	
1	1,100 gallon oil tank	O/S comp. blag (fills small tanks by ea. comp)
1	560 gallon used oil tank, underground	Drain oil from comp. Safety Clean hauls
1	2,000 gallon water/oil tank	Drain
1	Elastec Inc. Smart Ash Burner	
2	Window-mounted air conditioning units In-house etc certified or OK Tolin	Just emergency (<100 hr/yr) S/O weekly
1	Generac 2000	Gas-fired OPS Computer, Lighting, Mercaptan system
	Model # 3A80580100	PLC controls (injection)

9/19/03 35 kW

3 Filter/separator w/ catalytic heaters / EH

1 Cool and Tank Ambitrol Coastal guard 50

Solenoid on top when compressors start up.

Steel tank in cement block - hauled

Mercaptan  
1 mi. system  
0.7 gal  
0.764 mscf  
(elec. driven)

Takes liquids from separators & interstage cooler

SCADA system  
Gas & Fire detection  
Heat trace

**II.A. Recordkeeping Requirements** [40 CFR 71.6(a)(3)(ii)]

If the permittee determines that his or her stationary source that emits (or has the potential to emit, without considering controls) one or more hazardous air pollutants is not subject to a relevant standard or other requirement established under 40 CFR part 63, the permittee shall keep a record of the applicability determination on site at the source for a period of five years after the determination, or until the source changes its operations to become an affected source, whichever comes first. The record of the applicability determination shall include an analysis (or other information) that demonstrates why the permittee believes the source is unaffected (e.g., because the source is an area source). [40 CFR 63.10(b)(3)]

**II.<sup>C</sup>~~Q~~. Alternative Operating Scenarios** [40 CFR 71.6(a)(9)]

**1) Gas- Fired Engine Replacement/Overhaul**

Replacement of an existing permitted engine with a new or overhauled engine of the same make, model, horsepower rating, and configured to operate in the same manner as the engine being replaced, and which satisfies all of the provisions for Off Permit Changes (condition III.Q of this permit), including the provisions specific to engine replacement, shall be considered an allowed alternative operating scenario under this permit.

Any emission limits, requirements, control technologies, or provisions that apply to engines that are replaced under this Alternative Operating Scenarios section shall also apply to the replacement engines.

**III.A. Annual Fee Payment** [40 CFR § 71.6(a)(7) and 40 CFR § 71.9]

See Emission Inventory below. Inventory quantities submitted with fee payment. *[Explanatory note: An annual emissions report, required at the same time as the fee calculation worksheet by §71.9(h), has been incorporated into the fee calculation worksheet form "FEE" as a convenience to permittees.]*

**III.B. Annual Emissions Inventory** [40 CFR § 71.9(h)(1)and (2)]

Requirement	Status
The permittee shall submit an annual emissions report of its actual emissions for both criteria pollutants and regulated HAPS for this facility for the preceding calendar year for fee assessment	See historical record below. Discuss how they estimate emissions ....

purposes. The annual emissions report shall be certified by a responsible official and shall be submitted each year to EPA on April 1.

& Bob send eng. rfr  
emiss. factory

Pollutant	TONS						
	PTE	2005	2004	2003	2002	2001	2000
NOx	162	56.6	57.2				
SO2	0.03	0.03	0.01				
CO	198	69.86	70.54				
VOC	32.2	4.3	3.7				
Toluene	8.116	0.3	0.2				
Benzene	2.815	0.1	0.2				
Xylene	1.362	0.01	0.01				
N-Hexane	0.424	0	0				

Formaldehyde	1.374	0.6	0.7				
HAPs	14.9						

**IV.D. Compliance Certifications [40 CFR § 71.6(c)(5)]**

Requirement	Status
The permittee shall submit to EPA a certification of compliance with permit terms and conditions, including emission limitations, standards, or work practices annually by April 1 <sup>st</sup> , and shall cover the 12 month period ending on February 28 <sup>th</sup> of the year the certification of compliance is due. The compliance certification shall be certified as to truth, accuracy, and completeness by a responsible official consistent with § 71.5(d).	2005 sent ... 2004 sent ... 2003 sent ... 2002 sent ...

**Permit Revision History**

DATE OF REVISION	TYPE OF REVISION	SECTION NUMBER, CONDITION NUMBER	DESCRIPTION OF REVISION
None			

**Inspection Information:**

1. Directions to Plant: From Bayfield, Colorado, travel south on Buck Highway/County Road 521 to Ignacio, then south on State Highway 151 past mile marker 9 to County Road 330. Travel approximately 1 mile east on County Road 330 to the Tiffany Station.
2. Safety Equipment Required: As posted at the entrance to the station, Tiffany Station requires persons entering the site to wear a hard hat, safety glasses, safety toe footwear, hearing protection, and fire retardant clothing.

[www.xcelenergy.com](http://www.xcelenergy.com)



**Robert E. King, P.E.**  
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